

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 26, as follows:

Among methods of rewriting such a control program are a writer rewriting mode for rewriting a control program by using a flash writer and a self-programming mode for rewriting a nonvolatile memory at the stage of user's use. The writer rewriting mode is a mode of controlling rewriting of a flash memory by starting instruction execution from a boot memory to communicate with the outside, while a user mode is a mode of executing a user region by similarly booting from a boot memory and then selecting a start address. In the self-programming mode, a boot program and other instructions necessary for rewriting are transferred from a nonvolatile memory or from the outside to a RAM to rewrite the nonvolatile memory based on the instruction read from the RAM. In the self-programming mode, only when rewriting a region containing a boot block, a boot program is required as writing data.
[[Boot]] ~~A boot program here represents a program for booting, which is a program to be executed first at the time of system booting after the system is reset.~~

Please amend the paragraph beginning at page 2, line 19, as follows:

At the time of rewriting a certain memory block of a nonvolatile memory by the self-programming mode as described above or at the time of replacing a boot program with a new boot program, ~~a boot region switching processing process is executed of rewriting such that a boot program stored in the memory block in question is rewritten into another memory block or storing a new boot program is stored in another memory block, which causes to switch the region in which the boot program is stored to change to a new boot region.~~

Please amend the paragraph beginning at page 3, line 1, as follows:

However, simply ~~storing~~ transferring a boot program stored in a user region of a certain

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memory block into a RAM, or erasing an original boot program and storing the boot program read from the RAM in a user region of another memory block might result in [[that]] a single-chip microcomputer system [[can]] not being able to continue with normal operation due to instantaneous cut-off of power or the like occurring during erasure of a user region of a nonvolatile memory in which programs, including a boot program (hereinafter referred to as a boot program), are stored. In another case, instantaneous cut-off of power might occur during new program writing after erasure, resulting to result in incomplete writing. In such cases, even when the system is reset to boot again, there are cases where a boot program has not been normally rewritten to disable re-booting. Therefore, the self-programming mode of rewriting a nonvolatile memory at a stage of user's use has a problem that a user region in which a boot program is stored can not be erased safely.

Please amend the paragraph beginning at page 3, line 20, as follows:

As a countermeasure which eliminates the problem, techniques for safely rewriting a user region in which a boot program is stored are disclosed in Japanese Patent Laying-Open (kokai) No. Heisei 8-255084 and Japanese Patent Laying-Open (kokai) No. Heisei 10-149282. Employed here at the time This patent teaches the process of rewriting a program in a boot area, by [[is]] copying an old boot program into a free user region to save the same, erasing storage contents of the boot area in question and then writing a new boot program into the area, and after confirming the end of the writing, erasing the old boot program copied into the free user region. Therefore, even when there occurs a situation occurs where writing of a new program can not be executed completely due to instantaneous cut-off of power or the like, the system can be booted again by the old boot program to prevent the system from entering an unrecoverable state.

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Please amend the paragraph beginning at page 6, line 15, as follows:

Here, ~~represent~~ the user region and the boot area designation flag of the memory block 161 [[as]] are represented by the user region A and the boot area designation flag A, respectively, and the user region and the boot area designation flag of the memory block 162 are shown as the user region B and the boot area designation flag B, respectively.

Please amend the paragraph beginning at page 6, line 22, as follows:

~~First, erase~~ The conventional rewriting process involves: first, erasing the storage contents of the user region B and the boot area designation flag B into which a boot program is newly written (Step 201). ~~Then write; then, writing~~ the new boot program into the user region B (Step 202). ~~Next, write; next, writing~~ data so as to make the boot area designation flag B have boot designation (data “0”) (Step 203).

Please amend the paragraph beginning at page 7, line 1, as follows:

Then, [[erase]] the storage contents of the user region A and the boot area designation flag A (Step 204) are erased. At this time, ~~no write~~ nothing is written to the boot area designation flag A, and thus is conducted to make the data “1” remain remains the same. ~~Next,~~ write The next step is writing with a [[other]] program other than the boot program into the erased user region A according to the necessity.

Please amend the paragraph beginning at page 7, line 7, as follows:

In the user mode, when the system is booted by resetting, the program is executed from the boot memory 3, based on which program values of the boot area designation flag A and the boot area designation flag B. These flags are read to determine which of the user region A and the user region B ~~is an area including~~ stores the new boot program. The program writes the ~~and~~ write data of the relevant user region into the region switching flag 4 and the region switching

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flag 4. The Set the determination result at the region switching flag 4 is set to read storage contents branched into the user regions in which the new boot program is stored at the time of system booting.

Please amend the paragraph beginning at page 9, line 17, as follows:

The above-described conventional single-chip microcomputers have the shortcomings [[that]] of instantaneous power cut-off or the like occurring during the boot program rewriting processing in the self-programming mode [[makes]] making booting from the boot program impossible-to have erroneous operation.

Please amend the paragraph beginning at page 22, line 13, as follows:

Next, embodiment of the present invention will be detailed with reference to the drawings. Fig. 1 is a block diagram showing a structure of a single-chip microcomputer according to a first embodiment of the present invention. In Fig. 1, the same components as those in Fig. 4 are given the same reference numerals to omit and their description are omitted.

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